

Motherhood in the teens and twenties: some surprises

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Summary

We report a study of the association of health and social support variables with motherhood in teenagers and older mothers. Both teenage and older mothers reported poorer physical and mental health and fewer and less frequent social contacts than their nulliparous peers. Contrary to expectation, however, older mothers reported less extensive and less adequate social support networks than did teenagers.

INTRODUCTION

While recent figures show an increase in teenage pregnancies^{1,2} and a recent review³ has suggested that consideration should be given to providing targeted support for teenagers during and after pregnancy, their needs, especially in comparison to those of older mothers have not been clearly identified.⁴ Some research evidence suggests that the risk of adverse health and social outcomes for the pregnant teenager may be attributable to social and economic factors rather than to the mother's age^{5,6} but the relative contribution of these factors remains controversial. Evidence regarding the health and psychosocial status of both teenagers and older mothers is important to the primary care team in deciding their provision of appropriate health care.^{7,8}

The aim of this study was to determine if variables (measures of health and social status) associated with motherhood are the same for teenagers as for older mothers.

METHOD

A cross-sectional case control study design was used to compare four groups (teenage mothers, mothers aged 20-29 years and their respective nulliparous peers) with regard to measures of health, quality of life and social support. Ethical approval was obtained from the local Research Ethics Committee.

Within one five-partner group general practice first time mothers aged less than 30 years, who had one child aged 6-12 months and who lived in housing estates in West Belfast were identified

from maternity records. Mothers who had had other pregnancies in the past or who were currently pregnant were excluded from the study sample. Nulliparous females were identified from the practice records and matched with mothers by housing area and age (birth date closest to each mother's). A total of 60 mothers (30 were teenage) and 60 age-matched peers were asked by a partner in the practice for consent to be interviewed by a research worker who was interested in young women's health. With their consent, thirty teenage mothers were recruited within twelve months: a further month was required to recruit an equal number of eligible older mothers.

The health and social status measures used were the Short Form 36 (SF36) Health Survey,⁹ Broadhead Social Network Questionnaire¹⁰ and Cantril Ladder¹¹ and were administered in this order.

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The SF36 assesses respondents' perceptions of physical functional status and well-being. It measures eight different health concepts: scores for each range from 0-100, higher scores representing better health status.⁹ It also includes a single item measure of health transition, (range 1-5), in which a higher score indicates that health is worse than a year previously. The Broadhead Questionnaire assesses both the number and frequency of social contacts for the preceding month and expresses these as numeric scores. Satisfaction with these contacts is also measured so that the perceived level of the support (e.g. knowing someone who gives good advice; knowing someone who is interested in them) and the perceived adequacy (e.g. receiving as much care/ affection as wished) of the subject's social network can be evaluated.¹⁰ The Cantril Ladder measures self-assessed health status by asking the subjects to indicate on an illustrated ladder which step they feel represents their state of health currently, in the past (five years ago) and in the future (five years from now). The top of the ladder (step 10) represents the best possible state of health for them and the bottom (step 1) the worst possible.¹¹ Subjects were interviewed in their own homes. They completed the SF36 themselves but the research worker read out the other questionnaires and recorded responses.

Previous information was not available for accurate estimation of the sample size which was therefore determined by budgetary and time constraints.

Data were entered on to SPSS (for Windows) and analysed by analysis of variance.

RESULTS

The median age at interview for the teenage mothers and teenage nullipara was 18.2 years (interquartile range 0.77) and 18.2 years (interquartile range 0.69) respectively; for the older mothers and their nulliparous peers it was 23.3 years (interquartile range 1.61) and 23.7 years (interquartile range 2.42) respectively.

Analysis of variance of SF36 scores (Table I) indicated significant maternal status effects. Irrespective of age, non-mothers, compared with mothers, had significantly higher scores, which indicated their better health status, in respect of vitality, emotional and physical well-being and mental health. Scores for health transition indicated the extent to which respondents felt

TABLE I
Comparison of effects of age and maternal status: SF36 sub-scales: mean scores and ANOVA

BODILY PAIN			
Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	80.46	80.53	80.50
Older	72.80	80.30	76.40
	76.63	80.41	
VITALITY			
Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	47.50	76.00	61.75
Older	46.50	55.16	50.83
	47.00	65.58	
* Main effect: maternal status – F = 6.09; df = 1, 116; p<0.05			
PHYSICAL FUNCTIONING			
Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	91.83	95.16	93.49
Older	89.83	91.50	90.66
	90.83	93.30	
ROLE EMOTIONAL			
Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	79.96	88.90	84.43
Older	58.10	88.90	73.40
	69.03	88.90	
Main effect: Maternal status – F = 8.85; df 1, 116; p<0.01			
GENERAL HEALTH			
Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	65.73	79.16	72.44
Older	69.70	69.43	69.56
	67.71	72.79	
ROLE PHYSICAL			
Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	82.00	91.66	86.83
Older	77.66	91.66	84.66
	79.83	91.66	
**Main effect: Maternal status – F = 8.85 1, 116; p<0.01			
SOCIAL FUNCTIONING			
Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	84.30	91.56	87.93
Older	79.00	85.33	82.16
	81.65	84.44	
MENTAL HEALTH			
Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	56.53	72.13	64.33
Older	59.76	70.60	65.23
	58.14	71.36	
**Main effect: Maternal status – F = 10.55; df 1, 116; p<0.01			
HEALTH TRANSITION			
Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	2.93	2.86	2.89
Older	3.30	2.80	3.05
	3.11	2.83	

N.B. ANOVA applied to all SF36 sub-scales: maternal status, age group and interaction effects not significant except where indicated.

their health was worse currently than it was a year previously. Comparison of these mean scores between mothers and non-mothers reflected a trend that mothers felt that the extent to which their current health was worse was greater; comparison of older mothers' scores with their nulliparous peers suggested that the difference for this age group was greater than that for teenagers.

Table II shows mean scores which reflect the number and frequency of social contacts reported by subjects within the month prior to interview. Mothers, in both teenage and older groups, had smaller numbers of people comprising their social networks than had their nulliparous peers. Moreover, there was an age relationship: older groups reported smaller networks than teenagers.

Also, mothers had less frequent contacts with people in their social networks within the month prior to interview than had their nulliparous peers;

TABLE II

Broadhead Social Network Questionnaire: mean scores

EXTENT OF SOCIAL NETWORK
(family and friends)

Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	56.53	72.13	64.33
Older	59.76	70.60	65.23
	58.14	71.36	

* Main effect: Maternal status – $F = 6.31$; $df 1, 116$; $p < 0.05$

* Main effect: Age group – $F = 6.55$; $df 1, 116$; $p < 0.05$

SOCIAL CONTACTS IN PAST MONTH

Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	25.20	30.56	27.88
Older	21.20	28.63	24.91
	23.20	29.59	

*** Main effect: Maternal status – $F = 33.36$; $df 1, 116$; $p < 0.001$

** Main effect: Age group – $F = 7.17$; $df 1, 116$; $p < 0.01$

PERCEIVED LEVEL OF SUPPORT

Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	17.30	16.80	17.05
Older	14.70	18.30	16.50
	16.00	17.55	

* Interaction effect: Maternal status by age group – $F = 5.05$; $df 1, 116$; $p < 0.05$

PERCEIVED ADEQUACY OF SUPPORT

Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	21.67	23.03	22.35
Older	18.17	22.07	20.12
	19.92	22.55	

** Main effect: Maternal status – $F = 6.97$; $df 1, 116$; $p < 0.01$

* Main effect: Age group – $F = 5.01$; $df 1, 116$; $p < 0.05$

N.B. ANOVA applied to all sub-sections: maternal status, age group and interaction effects not significant except where indicated.

TABLE III

Comparison of perceived health status measured by Cantril Ladder – mean scores

CURRENT STATUS

Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	6.97	6.70	6.84
Older	6.37	6.80	6.58
	6.67	6.75	

CHANGE FROM 5 YEARS AGO

Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	-1.93	-1.23	-1.58
Older	-1.87	-0.70	-1.28
	-1.90	-0.96	

EXPECTED CHANGE IN NEXT 5 YEARS

Age Group	Maternal Status		
	Mothers	Nulliparous	
Teenage	-0.20	+0.37	+0.09
Older	+0.16	+0.50	+0.33
	-0.04	+0.44	

N.B. ANOVA applied to all sections: no significant effects observed.

the older groups had less than teenagers. The level of support perceived by older mothers was less than that perceived by their nulliparous peers but teenage mothers perceived a higher level of support than did their nulliparous peers. The perceived adequacy of support reported by mothers in both groups was less than that reported by their nulliparous peers: the mean scores of the older groups were less than those of teenagers.

All subjects indicated, on the Cantril Ladder, where they felt their level of health lay currently, five years previously and would lie five years hence: the groups did not differ significantly (Table III). Perceived health status five years previously was better than that perceived currently. All groups, except teenage mothers, expected that their health status would have improved in five years' time.

DISCUSSION

The design of the study with four groups (i.e. teenage nullipara, teenage mothers, older nullipara and older mothers) allowed assessment of two factors, age and maternal status.

The study only included first time mothers in order to minimise possible confounding factors. It was considered that varying numbers of pregnancies or children could affect maternal well-being and potentially influence measures of health and psychosocial status.

The timing of this study (6-12 months post-partum) was chosen in order to minimise the confounding effects of frequent routine health-care contacts which occur during the first six post-natal months and of other factors which may arise after the baby is a year old.

The results of the SF36 indicate that nulliparous subjects perceived their health to be better overall than did either of the groups of mothers. This suggests that mothers experience poorer mental health, vitality, and emotional and physical well-being than their nulliparous peers irrespective of age.

A previous study which had used the Social Support Questionnaire (which records absolute numbers of identified individuals who provide close social support and subjects' satisfaction with this support),¹² had shown no significant difference between teenage mothers and their nulliparous peers. The Broadhead Questionnaire, used in this study, provides more comprehensive information regarding social networks and types of social activities but does not ask subjects to specify individual relationships. Results obtained using this measure indicate that motherhood, regardless of age, is associated with less frequent social contacts and the social networks of older mothers, rather than of teenage mothers, are perceived as being the least adequate in providing support.

In this study no direct attempt was made to determine the marital status of subjects or whether they were cohabiting, nor were the teenage mothers questioned closely as to whether or not they were still living within the family home. During piloting of the questionnaire prior to the study enquiries on this subject were met with some suspicion. It was felt that detailed questioning could have prejudiced co-operation during the interview since some participants received financial benefits linked to their social (and housing) circumstances. Home and family circumstances, however, are obviously important determinants of social support and networking and further research study is needed in this area. If teenagers were still living within their original families they may have had 'built in' baby-sitting and readily available social support. If older mothers were living in their own homes, perhaps with partners who were out of the home during much of the working day, they may have found practical support less readily available.

The relatively poor perceived health status and social networks of the older mothers were unexpected findings which should be highlighted to those providing health and social care services for this group, particularly members of primary care teams. Since this study included only mothers aged less than thirty, further investigation of these issues with older mothers may be warranted. Despite the current emphasis of concern for young mothers,¹³ the level of support provided by her own social network appears to be better for teenagers than for mothers in their twenties. Our results indicate that a first-time mother with a child aged between six months and one year is likely to be disadvantaged in health and social well-being in comparison with her nulliparous peers, regardless of whether she is a teenager or is in her twenties. Further research to elucidate the nature of social support networks for first time mothers, irrespective of their age, would be relevant in addressing this inequality in health.

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